

IN THE CLAIMS:

1-5. (Cancelled)

6. (Currently Amended) A time managing apparatus that manages times clocked by a plurality of timer modules in target apparatuses connected to each other on a network, the time managing apparatus comprising:

a presetting information receiving means for receiving from outside presetting
5 information which is based on an input from a user and contains (a) event start time information that indicates an event start time at which one or more events should be started by each of the
two or more target apparatuses on the network, (b) two or more apparatus identifiers for two or
more target apparatuses among the target apparatuses on the network that should execute the one
or more events, and event type information indicating an event type for each of the one or more
10 events, (c) two or more apparatus identifiers for two or more target apparatuses among the target
apparatuses on the network that should execute the one or more events, and (d) a piece of management information that corresponds to the event start time and is used to manage a time
clocked by a timer module identifies a timer module;

a holding means for holding the event start time information, apparatus identifier,
15 and piece of management information received by the presetting information receiving means;

the time output requesting means for requesting the timer module corresponding
to the piece of management information held by the holding means to output a standard time;

a time receiving means for receiving the standard time from the timer module,
requested by the time output requesting means, to output the standard time;

20 ~~a time managing means for managing the standard time, received by the time receiving means, by storing the standard time together with the piece of management information held by the holding means, in correspondence with the timer module;~~

 a presetting information transmitting means for transmitting [[,]] the event start time information and the ~~piece of management information held by the holding means, to each of~~
25 ~~the two or more target apparatuses that are identified by the apparatus identifiers held by the holding means~~ event type information received by the presetting information receiving means, to the two or more target apparatuses identified by the received two or more apparatus identifiers;

a vicarious time managing means for acquiring a standard time from the timer module identified by the received management information and managing times vicariously in
30 correspondence with pieces of management information;

 a standard time acquisition request receiving means for receiving a ~~standard time acquisition request together with a piece of management information from each of the two or more target apparatuses~~ standard time acquisition requests, which are based on the transmitted event start time information and the event type information, from the two or more target
35 apparatuses to which the event start time information and the event type information were transmitted by the presetting information transmitting means; and

 a standard time transmitting means for transmitting, to each of the two or more target apparatuses, a standard time ~~that is identified by the piece of management information attached to the standard time acquisition request received by the standard time acquisition request receiving means;~~ managed by the vicarious time managing means to cause the target
40 apparatus to judge whether the transmitted standard time matches the event start time information transmitted by the presetting information transmitting means, and if the target

apparatus judges that the standard time matches the event start time information, cause the target apparatus to execute an event indicated by the event type information transmitted by the
45 presetting information transmitting means.

~~judging means for judging whether the event start time is reached; and~~
~~an instructing means for, when the judging means judge the event start time is~~
~~reached transmitting triggers to two or more target apparatus so that the two or more target~~
~~apparatus start executing the one or more events simultaneously.~~

7. (Currently Amended) The time managing apparatus of claim 6, wherein

~~the presetting information receiving means further receives event type~~
~~information indicating an event type for each of the one or more events,~~

~~the holding means further holds the event information received by the presetting~~
5 ~~information receiving means, and~~

~~the presetting information transmitting means further transmits the event type~~
~~information held by the holding means management information received by the presetting~~
~~information receiving means, together with the event start time information and the event type~~
~~information to the two or more target apparatuses,~~

10 ~~the standard time acquisition request receiving means receives the standard time~~
~~acquisition requests that are attached with the management information, from the two or more~~
~~target apparatuses, and~~

~~the standard time transmitting means transmits standard times identified by the~~
~~management information attached to the standard time acquisition requests, among standard~~
15 ~~times managed by the vicarious time managing means, to the two or more target apparatuses.~~

8. (Cancelled)

9. (Currently Amended) The time managing apparatus of claim 7 further comprising:

a management information storage means for storing the piece of management information received by the presetting information receiving means, by correlating the piece of management information with at least one of a piece of event type information and ~~two or more~~
5 at least one of the apparatus identifier[[s]], wherein

if the presetting information receiving means receives at least one of a piece of event type information and an apparatus identifier, without receiving management information, the presetting information receiving means searches the management information storage means
10 for a piece of management information that correlates with the received piece of event type information and/or apparatus identifier, and if the presetting information receiving means finds such a piece of management information, the presetting information receiving means allows the found piece of management information to be selected automatically.

10-12. (Cancelled)

13. (Currently Amended) ~~A time managing apparatus that manages~~ A target apparatus for receiving a time from a time managing apparatus and executing an event based on the received time, the time managing apparatus managing times clocked by a plurality of timer modules in target apparatuses connected to each other on a network, the target ~~time managing~~
5 apparatus comprising:

a presetting information receiving means for receiving (a) event start time information that indicates an event start time at which one or more events should be started by two or more apparatuses on the network, (b) a piece of management information, and (c) event type information indicating an event type for each of the one or more events, from a target apparatus among the target apparatuses on the network that vicariously manages standard times clocked by the plurality of timer modules using different pieces of management information assigned to the plurality of timer modules from a time managing apparatus that manages a standard time vicariously for a time module that clocks the standard time, by attaching the management information to the standard time;

a holding means for holding the received event start time information, piece of management information, and event type information;

a time acquisition request transmitting means for transmitting to the target apparatus, which manages the standard times, time managing apparatus, a time acquisition request with the received piece of management information attached thereto;

a time receiving means for receiving from the target apparatus, which manages the standard times, time managing apparatus, a standard time identified by the transmitted piece of management information among the standard times managed by the target apparatus time managing apparatus;

a judging means for judging whether the event start time is reached by comparing the received standard time with the event start time indicated by the event start time information held by the holding means; and

an executing means for starting to execute an event that is indicated by the event type information held by the holding means when the judging means judges that the event start

time is reached by transmitting triggers to two or more target apparatus so that the two or more
30 target apparatus start executing the one or more events simultaneously.

14-15. (Cancelled)

16. (Currently Amended) A time managing method for a time managing apparatus
that manages times clocked by a plurality of timer modules in target apparatuses connected to
each other on a network, the time managing apparatus comprising a recording medium, the time
managing method comprising:

5 a presetting information receiving step for receiving from outside presetting
information which is based on an input from a user and contains (a) event start time information
that indicates an event start time at which one or more events should be started by ~~two or more~~
each of the target apparatuses ~~among the target apparatuses on the network~~, (b) ~~one or more~~
~~apparatus identifiers of two or more target apparatuses among the target apparatuses on the~~
10 ~~network that should execute the one or more events and~~ event type information indicating an
event type for each of the one or more events, (c) two or more apparatus identifiers for two or
more target apparatuses among the target apparatuses on the network that should execute the one
or more events, and (d) a piece of management information that identifies a timer module
~~corresponds to the event start time and is used to manage a time clocked by a time module;~~

15 ~~a holding step for holding the event start time information, apparatus identifiers,~~
~~and piece of management information received by the presetting information receiving step;~~

~~a time output requesting step for requesting the timer module corresponding to the~~
~~piece of management information to output a standard time;~~

~~a time receiving step for receiving the standard time from the timer module~~
20 ~~requested by the time output requesting step to output the standard time;~~

~~a time managing step for managing the received standard time by storing the~~
~~stored time together with the piece of management information, in correspondence with the timer~~
~~module;~~

a presetting information transmitting step for transmitting the event start time
25 ~~information and the piece of management information to the two or more target apparatuses that~~
~~are identified by the one or more apparatus identifiers held in the recording medium event type~~
~~information received in the presetting information receiving step, to the two or more target~~
~~apparatuses identified by the received two or more apparatus identifiers;~~

a standard time acquisition request receiving step for receiving ~~a standard time~~
30 ~~acquisition request together with a piece of management information from each of the two or~~
~~more target apparatuses;~~ standard time acquisition requests, which are based on the transmitted
event start time information and the event type information, from the two or more target
apparatuses to which the event start time information and the event type information were
transmitted in the presetting information transmitting step; and

35 a standard time transmitting step for transmitting, to each of the two or more
target apparatuses, ~~a standard time that is identified by the piece of management information~~
~~attached to the standard time acquisition request received by the standard time acquisition~~
~~request receiving step;~~ managed by the vicarious time managing means to cause the target
apparatus to judge whether the transmitted standard time matches the event start time
40 information transmitted in the presetting information transmitting step, and if the target apparatus
judges that the standard time matches the event start time information, cause the target apparatus

to execute an event indicated by the event type information transmitted in the presetting information transmitting step.

a judging step for judging when an event start time is reached; and

45 an instructing step for when the judging step judge the event start time is reached transmitting triggers to one or more target apparatus so that the two or more target apparatus start executing the one or more events simultaneously.

17-18. (Cancelled)

19. (Currently Amended) A time managing method for a ~~time managing apparatus~~ that manages target apparatus for receiving a time from a time managing apparatus and executing an event based on the received time, the time managing apparatus managing times clocked by a plurality of timer modules in target apparatuses connected to each other on a network, the target
5 apparatus comprising a recording medium, the time managing method comprising:

the time managing apparatus comprising:

a recording medium, and

the time managing method comprising:

a presetting information receiving step for receiving (a) event start time
10 information that indicates an event start time at which one or more events should be started by two or more target apparatuses on the network, (b) a piece of management information, and (c) event type information indicating an event type for each of the one or more events, ~~from a target apparatus among the target apparatuses on the network that vicariously manages the standard times clocked by the plurality of timer modules using different pieces of management~~
15 information assigned to the plurality of timer modules from a time managing apparatus that

manages a standard time vicariously for a time module that clocks the standard time, by attaching the management information to the standard time;

20 a holding step for holding, ~~in the recording medium,~~ the received event start time information, ~~piece of~~ management information, and event type information ~~received by the~~ presetting information receiving step;

a time acquisition request transmitting step for transmitting[[,]] to the ~~target apparatus that manages the standard times~~ time managing apparatus, a time acquisition request with the received ~~piece of~~ management information attached thereto;

25 a time receiving step for receiving from the time managing apparatus, ~~which manages the standard times,~~ a standard time identified by the transmitted ~~piece of~~ management information among the standard times managed by the time managing apparatus;

a judging step for judging whether the event start time ~~received in the time receiving step~~ is reached by comparing the received standard time with the event start time indicated by the event start time information recorded in the recording medium; and

30 an executing step for starting to execute an event that is indicated by the event type information recorded in the recording medium when the judging step judges that the event start time is reached by transmitting triggers to two or more target apparatus so that the two or more target apparatus start executing the one or more events simultaneously.

20-27. (Cancelled)

28. (Currently Amended) An apparatus comprising a machine readable medium containing instructions which, when executed by a machine, cause the machine to perform operations comprising:

receiving from outside presetting information which is based on an input from a
5 user and contains (a) event start time information that indicates an event start time at which one
or more events should be started by ~~two or more~~ each of the apparatuses on the network,
(b) ~~apparatus identifiers of apparatuses that should execute the one or more events,~~ and event
type information indicating an event type for each for one or more events, event type information
indicating an event type for each of the one or more events, (c) two or more apparatus identifiers
10 for two or more target apparatuses among the target apparatuses on the network that should
execute the one or more events, and (d) a piece of management information that ~~corresponds to~~
~~the event start time and is used to manage a time clocked by a timer module~~ identifies a timer
module;

~~holding the event start time information, apparatus identifiers, and piece of~~
15 ~~management information received;~~

~~requesting the timer module corresponding to the piece of management~~
~~information being held;~~

~~receiving the standard time from the timer module requested to output the~~
~~standard time;~~

20 ~~managing the standard time received by storing the standard time together with~~
~~the piece of management information being held, in correspondence with the timer module;~~

transmitting the event start time information and the ~~piece of management information being held to the apparatuses that are identified by the apparatus identifiers being held;~~ event type information received in the presetting information receiving, to the two or more

25 target apparatuses identified by the received two or more apparatus identifiers;

acquiring a standard time from the timer module identified by the received management information and managing times vicariously for each of the plurality of timer modules in correspondence with pieces of management information;

30 receiving a ~~standard time acquisition request together with a piece of management information from each of the apparatuses;~~ standard time acquisition requests, which are based on the transmitted event start time information and the event type information, from the two or more target apparatuses to which the event start time information and the event type information were transmitted in the presetting information transmitting; and

35 transmitting, to each of the two or more target apparatuses, a standard time managed by the vicarious time managing means to cause the target apparatus to judge whether the transmitted standard time matches the event start time information transmitted in the presetting information transmitting, and if the target apparatus judges that the standard time matches the event start time information, cause the target apparatus to execute an event indicated by the event type information transmitted in the presetting information transmitting. ~~that is~~
40 ~~identified by the piece of management information attached to the standard time acquisition request;~~

judging whether the event start time is reached; and

instructing, when the event start time is reached, a transmission of triggers to two
or more target apparatus so that the two or more target apparatus start executing the one or more
45 events simultaneously

29-30. (Cancelled)

31. (Currently Amended) An apparatus comprising a machine readable medium
containing instructions which, when executed by a machine, cause the machine to perform
operations comprising:

receiving (a) event start time information that indicates an event start time at
5 which one or more events should be started ~~by two or more apparatuses on the network~~, (b) a
~~piece of~~ management information, and (c) event type information indicating an event type for
each of the one or more events, ~~from an apparatus that vicariously manages the times clocked by~~
~~the plurality of timer modules using different pieces of management information assigned to the~~
~~plurality of timer modules~~ a time managing apparatus that manages a standard time vicariously
10 for a time module that clocks the standard time, by attaching the management information to the
standard time;

holding the received event start time information, ~~piece of~~ management
information, and event type information;

transmitting to the time managing apparatus, a time acquisition request with the
15 received ~~piece of~~ management information attached thereto;

receiving from the time managing apparatus, a standard time identified by the
transmitted ~~piece of~~ management information among the standard times managed by the time
managing apparatus;

judging whether the event start time is reached by comparing the received
20 standard time with the event start time indicated by the event start time information ~~being held~~
recorded in the recording medium; and

an executing for starting to execute an event that is indicated by the event type
information ~~being held~~ recorded in the recording medium when the judging means judges that
the event start time is reached by transmitting triggers to two or more target apparatus so that the
25 two or more target apparatus ~~that are to execute the event~~ start executing the one or more events
simultaneously.

32. (Cancelled)

33. (New) The time managing apparatus of claim 6 wherein:

the presetting information receiving means receives a first piece of management
information identifies a first time module and a second piece of management information that
identifies a second time module;

5 the vicarious time managing means acquires a first standard time from the first time
module identified by the first received management information and a second standard time from
the second time module identified by the second received management information;

the time standard time acquisition request receiving means receives a first standard time
acquisition request from a first target apparatus, and a second standard time acquisition request
10 from a second target apparatus; and

the standard time transmitting means transmits to the first target apparatus the first
standard time, and to the second target apparatus the second standard time.

34. (New) The time managing apparatus of claim 6 further comprising:

a management information storage unit for storing the piece of management information received by the presetting information receiving means, by correlating the piece of management information with at least one of a piece of event type information and at least one of the
5 apparatus identifiers.

35. (New) The time managing apparatus of claim 34 further comprising:

a vicarious time management storage unit for storing the piece of management information correlated with a source information indicating a location to obtain a standard time.

36. (New) A time managing and execution system comprising a time managing
5 apparatus and a plurality of target apparatuses, wherein the time managing apparatus that manages times clocked by a plurality of timer modules in the target apparatuses connected to each other on a network, and the target apparatuses receive a time from the time managing apparatus and execute an event based on the received time,

the time managing apparatus comprising:

10 a presetting information receiving means for receiving from outside presetting information which is based on an input from a user and contains (a) event start time information that indicates an event start time at which one or more events should be started by each of the target apparatuses, (b) event type information indicating an event type for each of the one or more events, (c) two or more apparatus identifiers for two or more target apparatuses among the
15 target apparatuses on the network that should execute the one or more events, and (d) a piece of management information that identifies a time module;

a presetting information transmitting means for transmitting the event start time information, the event type information and the management information received by the

presetting information receiving means, to the two or more target apparatuses identified by the

20 received two or more apparatus identifiers;

a vicarious time managing means for acquiring a standard time from the timer module identified by the received management information and managing times vicariously for each of the plurality of timer modules in correspondence with pieces of management information;

a standard time acquisition request receiving means for receiving standard time
25 acquisition requests attached with the management information, the requests being based on the transmitted event start time information and the event type information, from the two or more target apparatuses to which the event start time information and the event type information were transmitted by the presetting information transmitting means; and

a standard time transmitting means for transmitting standard times identified by the
30 management information attached to the standard time acquisition requests, among standard times managed by the vicarious time managing means, to the two or more target apparatuses,

each of the target apparatuses comprising:

a presetting information receiving means for receiving (a) event start time information that indicates an event start time at which one or more events should be started, (b) management
35 information, and (c) event type information indicating an event type for each of the one or more events, from a time managing apparatus that manages a standard time vicariously for a time module that clocks the standard time, by attaching the management information to the standard time;

a holding means for holding the received event start time information, management
40 information and event type information;

a time acquisition request transmitting means for transmitting to the time managing apparatus, a time acquisition request with the received management information attached thereto;

a time receiving means for receiving from the time managing apparatus, a standard time identified by the transmitted management information among the standard times managed by the

45 time managing apparatus;

a judging means for judging whether the event start time is reached by comparing the received standard time with the event start time indicated by the event start time information held by the holding means; and

an executing means for starting to execute an event that is indicated by the event type
50 information held by the holding means when the judging means judges that the event start time is reached by transmitting triggers to two or more target apparatus so that the two or more target apparatus start executing the one or more events simultaneously.